Part (a)	**Discuss all standard costing variances relating to section 3 for September 2021 for Intellect.** • **Support your answer with calculations, in as much detail as possible.** • **Ignore VAT for this section of the required.**		**Marks**
Calculation of variances			
		Amount	
Silica sand (given)			
Usage variance (365 000 – 300 000) * 12 (R3 600 000 / 300 000 kg = R12 per kg)		780 000U	
Price variance 380 000 * (12 – 9,5)		950 000F	
Electricity			
Total variances			
Usage variance (6 935 000 – 3 600 000) * 1,3 (R4 680 000 / 3 600 000 kWh = R1,30)		4 335 500U	1.5
Price variance (6 935 000 * (1,3 – 1,5))		1 387 000U	1
Alternative: 10 402 500 – (6 935 000 x 1.3)			
Variances related to normal production			
Usage variance (6 205 000 – 3 600 000) * 1,3 (6 935 000 – 730 000 = 6 205 000)		3 386 500U	1.5
Price variance 6 205 000 * (1,3 – 1,5)		1 241 000U	1
Variances attributed to load shedding		1 095 000U	1
Usage variance (730 000 x 1.3)		949 000U	
Price variance (730 000 x [1.5 – 1.3])		146 000U	
Interpretation:			
1	The company used more sand than budgeted, but the sand was much cheaper, which raises the question of whether it was possibly a **lower quality sand** which caused adverse usage.		1
2	A significant electricity usage variance was caused by the fact that an entire **batch had to be reworked** due to unscheduled load shedding.		1
3	The impact of **load shedding** should be **removed** to allow for a meaningful analysis of the variances under normal operating conditions. The impact of the load shedding was material, consider if this is **likely to be an on-going** concern that needs to be managed with alternative sources of energy.		1 1
4	The usage of electricity also appears to have been affected by the lower quality sand, possibly requiring **more energy during processing**.		1
5	The **original budget** may simply have been incorrect, although this seems unlikely as the process has been running for nearly two years – the budgeting process may require a review.		1
6	As the **change in the electricity price is permanent**, the budget should ideally have been revised to reflect the new information (called a planning variance) **before** the variance calculations were carried out.		1
7	When combining the impact of the assumed poor sand quality, the impact from both the **additional quantity** and the **additional processing electricity** causes a significant unfavourable variance, reducing profitability.		1
8	If lower quality silica sand is being used as is suspected, this may result in **more rejections** during the testing stage and further deterioration of plant and equipment, resulting in a further reduction in profitability.		1

9	Intellect made bulk purchases of sand during September in order to make use of **bulk discounts**, resulting in a favourable price variance.	1
10	Intellect contracted with a new supplier for the sand purchases. In negotiating with the new supplier, the company was able to **negotiate for a cheaper price**, which resulted in a favourable price variance.	1
11	The variances are significant and **should be addressed** by management	1
	Available	**18**
	Maximum	**10**
	Total for part (a)	**10**

Part (b)(i) Calculate, using absorption costing principles, a selling price for the graphene chip; and • For part (b)(i) take into account all the relevant tax effects. • For parts (b)(i) and (b)(ii) of the required – ○ do not prepare a net present value calculation; ○ ignore inflation and the time value of money; ○ ignore VAT for this section of the required; and ○ round all total amounts to the nearest rand.			**Marks**
Proposed selling price of new Graphene CPU chips			
Pricing component	**Calculation and/or rationale**	**Amount**	
Variable costs	R151 x 100 000 x 2 years	30 200 000	1.5
Fixed costs	Allocated: R21m x 2	42 000 000	1
New production plant	Net: R15 000 000 – R9 000 000	6 000 000	1
Research and development costs		8 000 000	0.5
Old production equipment	Not relevant to the pricing decision	0	1
Taxation	See calculation below	(25 256 000)	
Total cost to cover		**60 944 000**	
Divided by number of units	100 000 x 2	200 000	0.5
Cost per unit		304,72	0.5P
Required profit %		25%	
Return required after tax	R304,72 / 0.75	406,29	1C
Tax rate		28%	
Selling price before tax	R406,29 / 0.72	R564,30	1C
Taxation calculation			
Variable costs		(30 200 000)	
Fixed costs		(42 000 000)	
Research and development costs	R8 000 000 x 150%	(12 000 000)	1
Wear and tear	R15m x (40 + 20)%	(9 000 000)	1.5
Recoupment	R9m – (R15m x 40%)	3 000 000	1.5
Total taxable deduction		90 200 000	
Tax impact @ 28%		25 256 000	1C
		Available	**13**
		Maximum	**13**
		Total for part (b)(i)	**13**

Part (b)(ii) **Discuss any other relevant factors the management should consider when setting the desired selling price of the graphene chip.** • **For parts (b)(i) and (b)(ii) of the required –** o do not prepare a net present value calculation; o ignore inflation and the time value of money; o ignore VAT for this section of the required; and o round all total amounts to the nearest rand.	**Marks**
Price considerations	
The new graphene CPU chips are likely to be **price sensitive, or operating in a price-elastic market**. Therefore, as the price is changed, expected volumes will shift. This **trade-off** should be carefully considered regarding market positioning.	1 1
As this is a high technology product, the company should **consider premium pricing** at introduction to capture the premium that supporters of first movers are prepared to pay.	1
This pricing assessment should be considered by management in conjunction with other **market-relevant consumer research / discussions with the current cell phone** manufacturers making use of Intellect's CPU chips.	1
The company could then perhaps run the silicon CPU chips for a **further year** to supply the more cost-sensitive customers. Consider sensitivity analysis to determine the optimal price/volume ratio for both products.	 1
The company should assess where **competitor products** are at the moment from a substitution perspective (quality considerations), and what prices they are currently charging, rather than just deciding on a required net profit after tax %.	1
Consider **lowering the price (accepting a smaller profit)** to create a barrier to entry, so as to reduce the number of competitors that might be considering entering the market.	1
The **timelines for setting up a new complex production plant** should be considered and included in the calculations.	1
Consider applying **target costing** by first estimating a reasonable price the mobile device manufacturers would likely be willing to pay, then deducting the desired profit, and thereafter calculating a target cost – make adjustments to the budget / design accordingly.	1
Available	**9**
Maximum	**5**
Total for part (b)(ii)	**5**
Communication skills – presentation	*1*
Total for part (b)	**19**

Part (c)	**Discuss, with reference to relevant legislation and case law principles, the income tax implications of the write-down of the closing stock that the financial accountant made for the 2021 year of assessment (see section 4).** • **Do not provide calculations.**	**Marks**
1	Closing stock of **silicon chips** of Intellect must be included in taxable income at **its value at the end of the 2021 year of assessment in terms of s22(1)** of the Income Tax Act.	1
2	In terms of s22(1)(a), the **cost price of the silicon chips can be reduced** by an amount that the Commissioner of the SARS may think is just and reasonable, as representing the value by which the stock has decreased in the value as a result of the **change in technology** for Intellect's new graphene chips.	1
3	**Closing stock cannot simply be adjusted for tax purposes to the net realisable value** used for accounting purposes, **which takes into account future expenditure not yet incurred,** as that is inconsistent with tax principles that only allow deductions for **amounts actually incurred** (VW case principle).	1
4	Intellect's silicon chips will only **reduce in value** when its **new graphene chips are released** and as that will only be in the **2022 year of assessment**, when the company releases the new technology (application of case law principle).	1
5	**Conclusion:** There will be **no write down** of closing stock **in the 2021 year of assessment**. *Logical and based on candidates' discussion – no mark for contradictions.*	1P
Note: There are two cases which have dealt with a similar issue. The first is C:SARS v Volkswagen SA (Pty) Ltd (1028/2017) [2018] ZASCA 116 (19 September 2018). This case primarily confirmed that an accounting impairment is, in itself, insufficient to result in a decrease in market value. *[This was further tested in CSARS v Atlas Copco South Africa (Pty) Ltd (834/2018) [2019] ZASCA 124 (27 September 2019), where the judgment confirmed that while IFRS allows for impairments based on prospective changes, tax does not. The reason for impairment must already have occurred at the time closing stock is assessed.]*		
	Available	**5**
	Maximum	**4**
	Total for part (c)	**4**

Part (d)	**Discuss the VAT and normal tax consequences, supported with calculations, of the transactions under section 5 for Intellect's 2021 year of assessment.** • **Do not address the date of tax payments to SARS.**	**Marks**
VAT		
1	The **acquisition of the new cellular phone to give it to the chief** of the local fire department is **regarded to be a bribe and not part of Intellect Ltd's 'enterprise'** and therefore **no input tax** can be claimed.	1
2	**Giving the phone** to the chief is **not a supply in the course or furtherance of an enterprise**, and therefore **no output tax** will be levied (s7(1)(a) of the VAT Act).	1
3	**The estimated costs lost will have no VAT implications** because of 'no production' as there is **no supply of goods and services** (s7(1)(a) of the VAT Act).	1
4	A **deemed supply** arises where Intellect receives an **indemnity payment of R345 000** under its contract of insurance, to the extent that it relates to a loss incurred in the course or furtherance of its enterprise,	1
5	at the date of the payment, **25 October 2021** (*thus the monthly VAT period ending 31 October 2021*)	1
6	and the amount of R345 000 x 15/115 = **R45 000 output tax** (s 8(8) of the VAT Act)	1
7	As **no consideration** is received by Intellect with regard **to the replacement of the window and repainting**, there is **no output tax on the R57 500** paid directly by the insurance company to the contractors.	1
8	The is **no consideration received** in relation to the insurance claim on the **delivery vehicle**, therefore **no output tax would be levied**.	1
Income tax		
9	**Estimated cost lost** because of 'no production' – Intellect can only get a **deduction for expenditure or losses actually incurred in the production of income,** not 'notional' or 'estimated' costs (s11(a) of the Income Tax Act).	1
10	The new **cellular phone given to the chief** of the local fire department is **considered to be a bribe, and thus also an unlawful activity** (Prevention and Combating of Corrupt Activities Act 12 of 2004) **and prohibited from being deducted from taxable income** (s23(o)(i) of the Income Tax Act).	1
11	**The repair cost** relating to the window and paint **will not be allowed as a deduction** for income tax purposes as **no costs were actually incurred** (s11(d)) of the Income Tax Act).	1
Trading stock		
12	The receipt of the insurance proceeds is **capital in nature as it relates to the replacement of an asset.** ***Alt*** *The amount of R345 000 x 100/115 =* ***R300 000 (excluding VAT)*** *received from the insurance company for the loss of trading stock will be included* ***in gross income as it is of a revenue nature*** *(s1 of the Income Tax Act). (The insurance company is a VAT vendor so payment received will be inclusive of VAT.)*	1 *1*
13	Intellect would have in the current year of assessment accounted for the opening stock deduction. **s23(c) now applies, which means this deduction must now be reduced by the amount of indemnified trading stock lost of R300 000.** ***Alt:***	1 1

	The trading stock was in opening stock (s22(2)) ***will result in a deduction against income – (R300 000)*** *(2 000 units x R150) (exclude VAT as per additional information).*		
Delivery vehicle			
14	The **loss of the delivery vehicle** as a result of the fire will result in a **disposal for capital gains tax purposes** (para. 11(1)(c) of the Eighth Schedule).		1
15	The capital allowances claimed on the delivery vehicle will have to be **recouped or a scrapping allowance** will have to be calculated:		1
16	**Cost of the delivery vehicle: R552 000 x 100/115 (notional input VAT** was claimed on the second hand delivery vehicle previously owned and used by a South African non-VAT vendor)	480 000	1
17	S11(e) wear and tear allowances (2019 & 2020): (R480 000/**4) x 2**	(240 000)	1
18	2021: S11(e) wear and tear allowances: (R480 000/4 x **344/365**) (must use days as it occurred in the middle of the month) *Alt: R480 000/4 x **11/12** months = R110 000*	(113 096)	1
	Tax value	126 904	
19	As no proceeds were received from the insurance company for the year of assessment ended 31 October 2021, Intellect Ltd will **elect** to claim a s11(o) allowance of R0 – R126 904 = (R126 904)		1
20	Therefore, **the deduction will be disregarded until the actual insurance proceeds can be quantified** (s20B & s24M of the Income Tax Act and para. 13(1)(c) of the Eighth Schedule).		1
21	**The capital loss of R126 904** (Proceeds R0 – Base Cost (R480 000 – (R240 000 + R113 096)) is **disregarded until the insurance settlement amount is finalised** (para. 39A of the Eighth Schedule). *Alt: This will result in a capital gain/loss of R0 (Proceeds R0 – Base Cost (R480 000 – (R240 000 + R113 096* ***+ R126 904****) (If s20B was not identified)*		1P 1 *1P*
		Available	**22**
		Maximum	**16**
		Communication skills – clarity of expression	*1*
		Total for part (d)	**17**
		Total for the question	**50**